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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,890	09/30/2003	LaSalle R. Swenson	104362-I	6129
23490	7590	03/22/2006	EXAMINER	
JOHN G TOLOMEI, PATENT DEPARTMENT UOP LLC 25 EAST ALGONQUIN ROAD P O BOX 5017 DES PLAINES, IL 60017-5017			ALEXANDER, LYLE	
			ART UNIT	PAPER NUMBER
			1743	
DATE MAILED: 03/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/675,890

Applicant(s)

SWENSON ET AL.

Examiner

Lyle A. Alexander

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Upon updating the search, new art has been found and is applied in the new grounds of rejection below.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (USP 4,496,249) in view of Lowell (USP 5,360,743).

Lee et al. teach a method for determining the amount of adsorbate adsorbed on a solid. Column 2 lines 12+ teach the activation energy is calculated. Column 2 lines 32+ teach the catalyst is loaded with a sample and the temperature is increased and the gas is desorbed. Column 5-7 teach various relationships of time, temperature and adsorption of the gases.

Lee et al. is silent to the use of the claimed "blank run" and the exact mathematical relationships of claims 1 and 3.

Lowell teach a similar method that measures the surface area of a catalyst. It is known to use a non-absorbable gas, such as helium, to calibrate the sample cell. This gas has been read on the claimed "inert gas".

It would have been within the skill of the art to modify Lee et al. in view of Lowell and use an inert gas, such as helium, to calibrate the sample cells.

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one

that has well known and predictable results. The chosen empirical relationship between the observed or measured temperature and amount of catalyst would have been within the skill of the art and have the well known and predictable results of making a standard reference curve. Further, one having ordinary skill in the art would have expected similar results from the equations taught by Lee et al. as those presently claimed.

It would have been within the skill of the art to further modify Lee et al. and use the empirical relationships taught by claims 1 and 3 as optimization of a result effective variable as the results of these equations would have been expected to be similar to those of the equations taught by Lee et al.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. in view of Lowell together, further in view of Wilson (USP 6,063,633).

See Lee et al. in view of Lowell *supra*.

Lee et al. in view of Lowell is silent to the conducting the steps on a plurality of solid catalyst.

Wilson teaches a method for determining the catalytic activity at different temperatures and measuring the relative temperatures (see claims 42+). The sample is contacted with catalyst support that contains a plurality of catalysts which has been read on the claimed "contacting" steps. It is advantageous to simultaneously test a plurality of different solids/catalyst to obtain more data on the catalyst behavior at the same time.

It would have been within the skill of the art to modify Lee et al. in view of Lowell together, further in view of Wilson (USP 6,063,633) and perform the steps on plural catalytic solid surfaces to gain the above advantages.


***Response to Arguments***

Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A. Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Lyle A Alexander  
Primary Examiner  
Art Unit 1743